

KNOCK DETECTION DEVICE

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ABSTRACT OF THE DISCLOSURE

10 A knock detection device that can not only detect  
knock accurately, but can also detect heavy knock  
quickly. Cylinder pressure is detected by a pressure  
sensor installed in each cylinder in an internal  
combustion engine. As the occurrence or non-occurrence  
of heavy knock is determined based on the ratio between  
the maximum value of cylinder pressure fluctuation and  
15 the maximum value of cylinder pressure divided by a  
prescribed value, it becomes possible to detect the  
occurrence of heavy knock quickly. If it is determined  
that heavy knock has occurred, a knock suppression  
measure involving, for example, reducing the spark  
20 advance angle, is immediately applied, thus preventing  
damage to the internal combustion engine.